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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,015	12/10/2003	Kym John Keightley	1849014US1AP	1837

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EXAMINER

BOSWELL, CHRISTOPHER J

ART UNIT PAPER NUMBER

3676

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/734,015

Applicant(s)

KEIGHTLEY, KYM JOHN

Examiner

Christopher Boswell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

Claim 3 is objected to because of the following informalities: line 3 and line 6 refer to “said pinion gear”, though there is no recitation of a pinion gear in a previous claim to which claim 3 depends. Line 6 also recites “said pinion gear teeth”, and there is no recitation of this limitation in prior claims. Line 7 recites “said rack teeth”, there is no previous recitation of this limitation. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Number 4,502,716 to Yu.

Yu discloses a deadlocking assembly having a lock bolt (7) operatively coupled to a rack (4), a drive means (3) adapted to be rotatably driven and adapted to engage the rack to cause it to move in one axis (column 2, lines 38-41), the drive means including a deadlocking arrangement whereby when the bolt is in an extended position, external movement of the bolt towards the retracted position causes the rack to abut the deadlocking arrangement without engaging the

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drive means, as in claim 1, wherein the drive means is a pinion gear (figure 3B) including a plurality of gear teeth adapted to engage teeth on the rack (figure 2), as in claim 2, wherein the rack includes a cavity (404) to allow for a first arm (305) extending from the pinion gear to pass therethrough upon rotation of the pinion gear, the first arm effecting the deadlocking arrangement by abutting against a wall (5) in the rack cavity when the rack is moved independently of the pinion gear and where the pinion gear teeth are disengaged from the rack teeth, as in claim 3.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu, as applied above, in view of U.S. Patent Number 5,301,989 to Dallmann et al.

Yu discloses the invention substantially as claimed. Yu also discloses a deadlocking assembly having a rack (4) having a plurality of teeth (402) and supporting at one end a locking bolt (7), a pinion gear (3) having a plurality of teeth adapted to engage the rack teeth to cause the bolt to move in a longitudinal direction between an extended and a retracted position (column 2, lines 34-41), the pinion gear having an arm (305) extended to abut a surface of the rack (404). However Yu does not disclose a second arm adapted to abut a shoulder, and is parallel to the first

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arm. Dallmann teaches of an arm (large cog on gear) on a gear (56) that engages an opening (large opening on rack 60; figure 3) in a lock bolt in the same field of endeavor for the purpose of preventing the gear from over-pivoting which could damage the rack. It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate a second arm parallel and opposed to the first arm of Yu, to engage a shoulder of a void in the rack in order to prevent over pivoting of the gear, and thus avoiding possible damage to the rack.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to lock bolts actuated by gears:

U.S. Patent Number 6,478,345 to Viney, U.S. Patent Number 6,217,087 to Fuller, U.S. Patent Number 5,890,753 to Fuller, U.S. Patent Number 5,791,179 to Brask, U.S. Patent Number 5,280,881 to Karmin, U.S. Patent Number 5,265,452 to Dawson et al., U.S. Patent Number 3,638,461 to Watson, U.S. Patent Number 2,771,313 to Blake.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Boswell whose telephone number is (703) 305-4067. The examiner can normally be reached on 8:30 - 5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (703) 308-2686. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, reading "Daniel P. Stodola". The signature is fluid and cursive, with the first name "Daniel" being the most prominent part.

CJB *CB*
September 29, 2004

DANIEL P. STODOLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600